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## (54) Decorative panels for domestic appliances

(57) A decor panel 7 is held to the front of the door 1 of a domestic appliance, e.g. a freezer by channel section strips 10,12 and urged therein by resilient spacers 16,17.

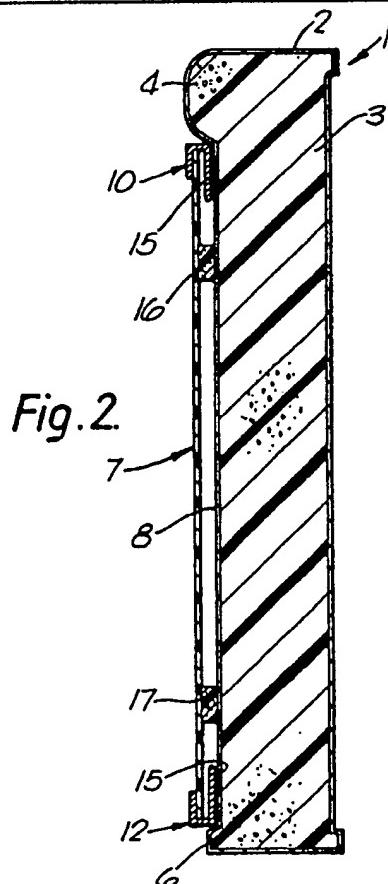


Fig. 2

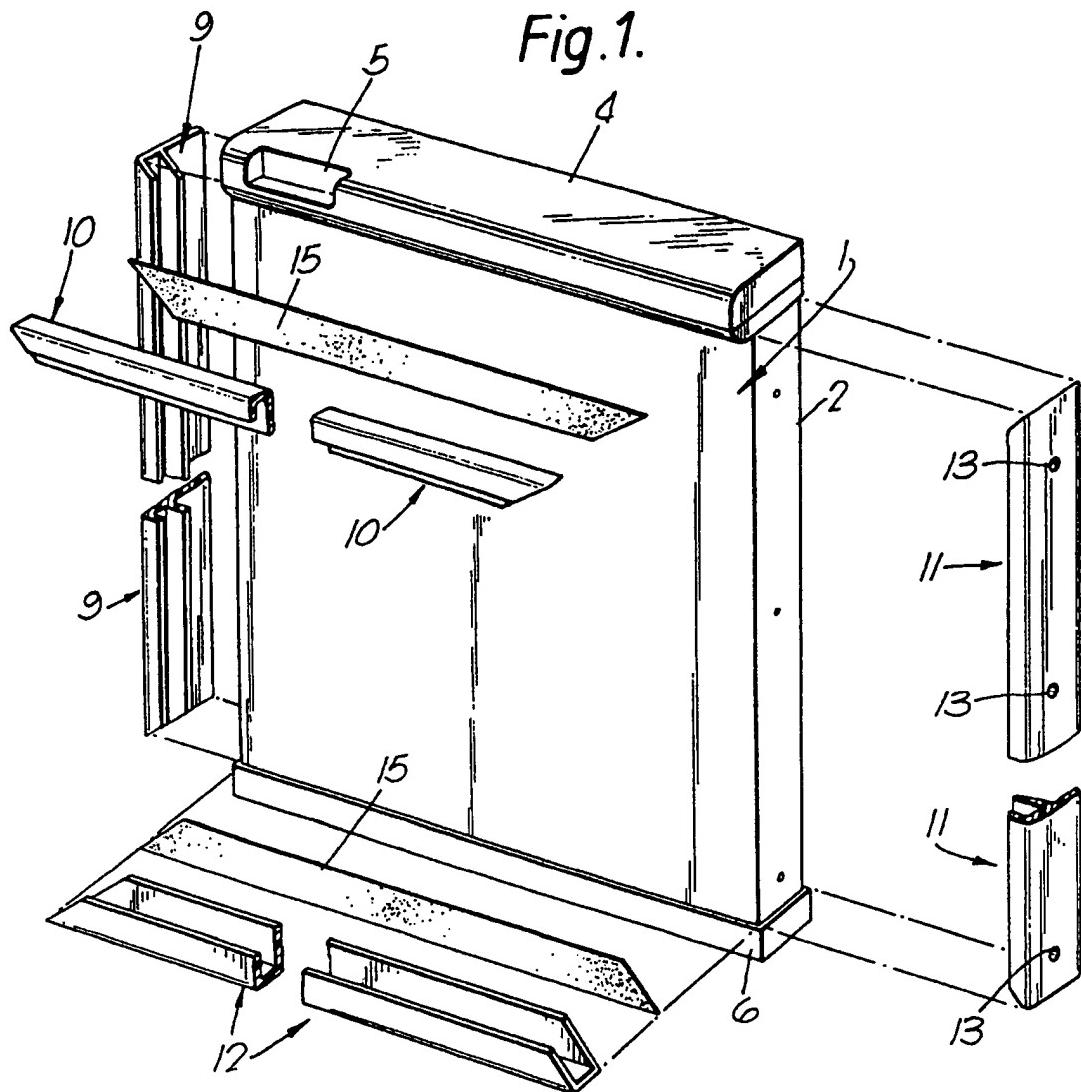
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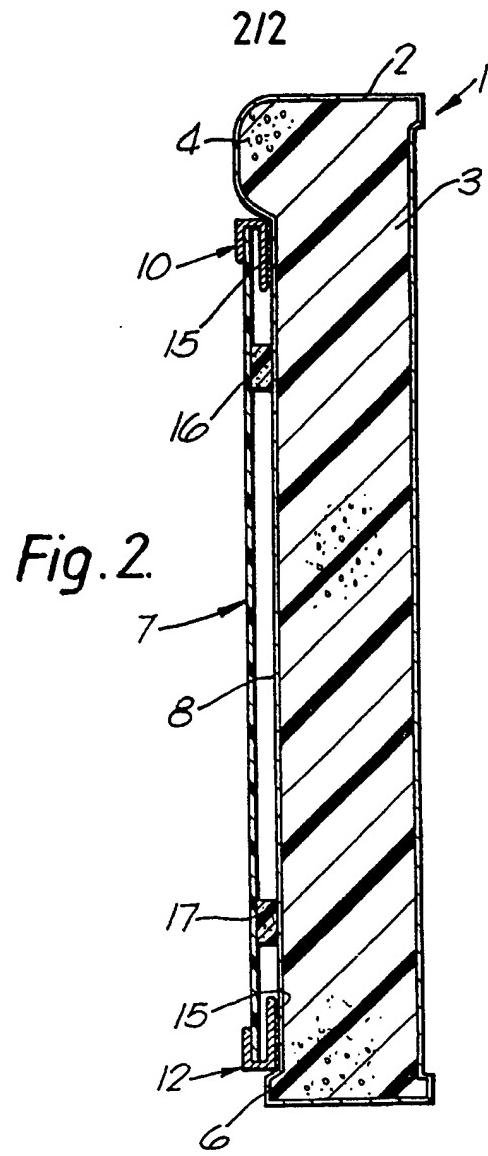
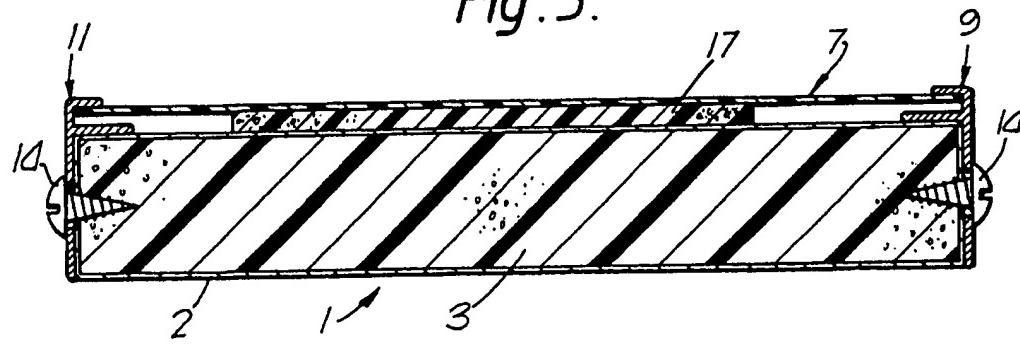


Fig. 3.



**SPECIFICATION****Fitting means for decorative panels**

5 This invention relates to means for fitting decorative panels, or decor panels as they are more commonly known, to certain domestic appliances.

Such decor panels, as they will hereinafter be referred to, have been used for many years as a means of providing a feature for the appliance and are usually mounted on the front of that appliance. Such an appliance may include dishwashers, refrigerators, freezers, refrigerator/freezers or any other appliance of comparable size that may be used in a kitchen.

Decor panels commonly provide an individual feature by way of colour or decoration to the appliance to which they are attached or, in some cases, the decor panels may provide a colour or decoration match for more than one such appliance. Furthermore it is desirable that decor panels can be changed so that the appliance or range of appliances can be given a new colour or decoration. With the general increase in 'do-it-yourself' type activities around the home it is also desirable that such decor panels can be easily installed by the user himself. It has been found that decor panels consisting of only a panel with an enclosing trim or series of trims can be easily fitted by the user in many cases, but that problems often arise with appliances having doors which have an enclosing capping piece or handle situated at the upper or lower end of the door, especially so when the capping piece or handle protrudes above the front surface of the door onto which the decor panel is to be mounted.

An object of the present invention is to provide a solution to this problem.

According to one aspect of the invention a means for fitting a decor panel to the surface of a door comprises a first pair of elongate retaining members each having a longitudinally extending channel and attachable to the surface in spaced parallel relationship so as to extend transversely across the surface with the mouths of the channels facing towards each other, into which opposed edges of the panel can be slotted, a second pair of elongate retaining members attachable to the door so as to extend between respective ends of the first members and to engage the side edges of the panel, and resilient spacing means arranged to be located between the door surface and the adjacent surface of the panel so as to urge the latter against the outer walls of the channels.

Each of the second pair of retaining members is preferably also formed with a longitudinally extending channel for receiving a respective side edge of the panel, and a flange arranged to engage the corresponding side edge

of the door, the flange conveniently being formed with holes for enabling the member to be secured in position by means of screws.

The two pairs of retaining members preferably co-operate to form trims extending completely around the decor panel, the ends of the members conveniently being mitred so as to conceal the entire panel edge.

The first pair of retaining members preferably have a U-shaped cross-section and are secured to the door surface by adhesive means, for example a double-sided adhesive tape. The second pair of retaining members are preferably each of F-shaped cross-section, the lower part of the upright providing the said flange, and the two parallel arms providing the channel for receiving the respective edge of the panel.

The resilient spacing means is conveniently provided by one or more sheets or strips of resilient foam material, for example self adhesive foam tape. Such a sheet or strip may be secured either to the front surface of the door or to the rear surface of the panel.

According to another aspect of the invention a method of installing a decor panel onto a door comprises the steps of: (i) securing a first pair of retaining trims to the front surface of the door so that they extend across it parallel to each other adjacent the upper and lower edges of the door respectively, (ii) arranging the decorative panel to have one edge within a retaining portion of each of said first retaining trim, with resilient spacing means

disposed between the decor panel and the door, (iii) arranging the side edges of the decor panel within a retaining portion of each of a second pair of retaining trims, and, (v) securing the second retaining trims to the door.

It will however, be appreciated that the steps enumerated above need not be carried out in the order mentioned. Thus the location of the resilient spacing means between the decor panel and the door may be achieved by securing

the spacing means to the front surface of the door or to the rear surface of the panel before introducing the respective edges of the panel into the retaining portions of the first pair of retaining trims. Similarly one of the

second pair of retaining trims may be secured to the door before it is engaged by the respective edge of the panel.

Each of the first retaining trims may comprise a "U" shaped section, with both parallel legs having different lengths, which is secured by double sided adhesive tape to the door of the appliance.

Each of the second retaining trims may comprise an "F" shaped section with the edge of the decorative panel being held in the two parallel arms. The said second trim may be secured to the door edge with screws or any other removable fixing means.

Resilient spacing means may consist of foamed plastic strips and are arranged so as

to ensure that the decor panel is pressed against the adjacent enclosing surfaces of the trims, thereby presenting a neat tidy appearance.

- 5 One embodiment of the invention as applied to a freezer door will now be described by way of example with reference to the drawings in which:—

Figure 1 shows an exploded view of an appliance door and decor panel retaining trims, and

Figures 2 and 3 show cross sections through the appliance door, with secured decor panels, of Fig. 1.

- 15 In the embodiment of the invention illustrated a door 1 comprises an outer shell 2 fitted with plastics foam insulation 3 and is provided along its upper edge with a moulded handle piece 4 having a finger recess 5 and 20 along its lower edge with a capping piece 6. A decor panel 7 of similar size to the front face 8 of the door 1 is held in position by four trims 9, 10, 11, 12 each having a retaining portion into which an edge part of the 25 decor panel 7 can be lodged. To this end the second retaining trims 9, 11 take the form of an 'F' section with the "top" arm of the 'F' being shorter than the other arm, and with the leg of the 'F' being provided with holes 13, 30 for example three in number, spaced so that when provided with associated screws 14, the trims 9, 11 may be adequately secured to the sides of the door 1. It is arranged for the trims 9, 11 to fit snugly against each side of 35 the door with the leg of the 'F' section and the shorter arm lying against the front surface and the side edge of the door respectively. The first retaining trims 10, 12, respectively are of generally 'U' section similar to the corner 40 responding part of the second trims 9, 11, it being arranged for the outer face of that side of the trim 10, 12 with the longer arm to be secured to the upper or lower portion of the front face of the door 1, using 'double-sided' 45 adhesive tape 15. The trims 10, 12 are located so as closely to fit against the handle 4 or capping piece 6 as appropriate.

Two strips of self-adhesive foam plastic tape 16, 17 fitted to the front face of the 50 door 1 towards its upper and lower edges respectively, provide resilient surfaces against which the decor panel 7 when fitted in position can rest.

Each end of the trims 9, 10, 11, 12 is 55 mitred so that when fitted and secured in position a neat, tidy continuous border is provided for the decor panel.

To fit the decor panel 7 in position the first retaining trims 10 and 12 are located and 60 then secured using the double-sided tape 15. One of the second retaining trims 9 or 11 is then fitted by first placing it in position between the corresponding ends of the first retaining trims 10, 11. Using the trim 9 or 11 65 as a combined template and jig a self tapping

screw 14 is inserted in each of the holes 13, driven into the side wall of the door 1 so as to puncture the metal and then screwed fully home.

- 70 The decor panel 7 is then slid into position within the arms of the three fixed trims and the final trim 9 or 11 fitted in a similar way and secured. Alternatively the final trim 9 or 11 may be fitted loosely, and the decor panel 7 slid into position within the arms of the three fixed trims and the final trim 9 or 11 secured.

Once assembled the kit or parts provides a neat fixing for the decor panel which is resiliently mounted against the door thus obviating any tendency to vibrate or otherwise move in its enclosure. The resilient mounting on the decor panel also ensures that the panel is pressed firmly against the under side of the 85 containing trims so avoiding unsightly gaps between the trims and the panel.

To replace the decor panel with one of alternative design and/or colour simply involves removing one of the second retaining trims, 90 sliding out the old panel, fitting the new one and then re-securing the trim.

In a modification of the arrangement described, which may in some cases be practicable, one of the U-section trims 10 or 12 may 95 be replaced by an F-section trim similar to the trims 9 and 11. This can be secured either by screws as in the case of the latter form of trims or by an adhesive.

In a further modification, the U-section 100 trims, instead of being attached to the door by means of an adhesive tape, may be slotted on to the respective edges of the panel and secured in position by the attachment of the F-section trims to the door. Retention of the 105 U-section trims on the panel could, in such a case be achieved by arranging for the legs of the F-section trims to be of a length such that they extend beyond the ends of the panel and to be turned inwards to engage the base of 110 the respective U-section trim.

#### CLAIMS

1. A means for fitting a decor panel to the surface of a door comprising a first pair of 115 elongate retaining members each having a longitudinally extending channel and attachable to the surface in spaced parallel relationship so as to extend transversely across the surface with the mouths of the channels facing towards each other, into which opposed 120 edges of the panel can be slotted, a second pair of elongate retaining members attachable to the door so as to extend between respective ends of the first members and to engage 125 the side edges of the panel, and resilient spacing means arranged to be located between the door surface and the adjacent surface of the panel so as to urge the latter against the outer walls of the channels.
2. A fitting means according to Claim 1

- wherein each of the second pair of retaining members is formed with a longitudinally extending channel for receiving a respective side edge of the panel, and a flange arranged to engage the corresponding side edge of the door.
3. A fitting means according to Claim 2 wherein the flange of each of said second pair of retaining members is formed with holes for enabling the member to be secured to the door by means of screws.
4. A fitting means according to any preceding Claim wherein the two pairs of retaining members co-operate to form trims extending completely around the decor panel, the ends of the members conveniently being mitred so as to conceal the entire panel edge.
5. A fitting means according to any preceding Claim wherein each of the first pair of retaining members has a U-shaped cross-section and is securable to the door surface by an adhesive means.
6. A fitting means according to Claim 5 wherein the adhesive means consists of double-sided adhesive tape.
7. A fitting means according to Claim 2 wherein each of said second pair of retaining member is of F-shaped cross-section, the lower part of the upright providing the said flange, and the two parallel arms providing the channel for receiving the respective edge of the panel.
8. A fitting means according to any preceding Claim wherein the resilient spacing means is provided by one or more sheets or strips of resilient foam material.
9. A fitting means according to Claim 8 wherein each said sheet or strip carries an adhesive for enabling it to be secured either to the outer surface of the door or the rear surface of the panel.
10. A method of fitting a decor panel to a door comprising the steps of: (i) securing a first pair of retaining trims to the front surface of the door so that they extend across it parallel to each other adjacent the upper and lower edges of the door respectively, (ii) arranging the decorative panel to have one edge within a retaining portion of each of said first retaining trim, with resilient spacing means disposed between the decor panel and the door, (iii) arranging the side edges of the decor panel within a retaining portion of each of a second pair of retaining trims, and, (v) securing the second retaining trims to the door.
11. A domestic appliance having a decor panel fitted to the front of the appliance by the method of Claim 10.
12. A fitting means for securing a decor panel to the door of a refrigerator substantially as shown in and as hereinbefore described with reference to Figs. 1 to 3 of the accompanying drawings.

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